

## Bellefonte Efficiency & Sustainability Team

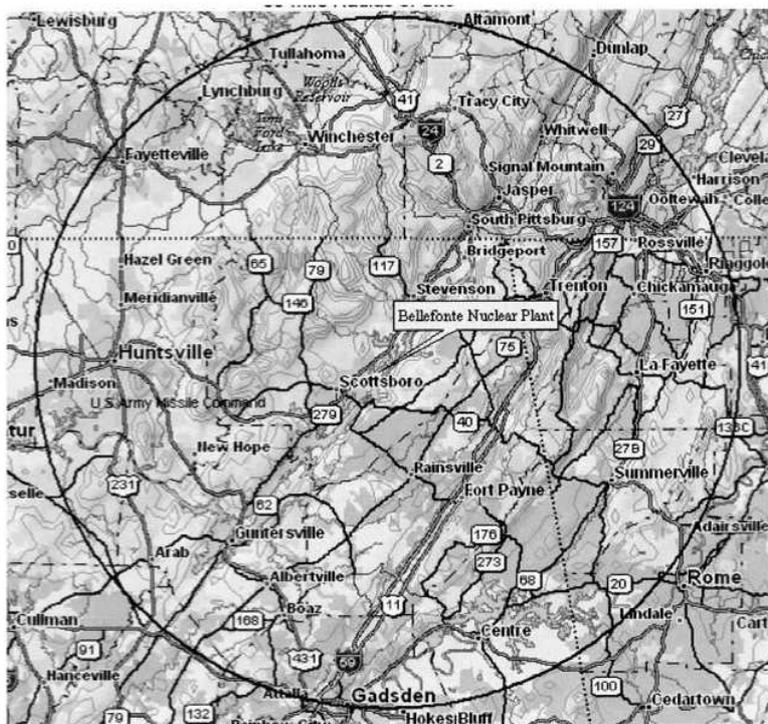
A Chapter of the Blue Ridge Environmental Defense League

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### *No to Bellefonte Nuclear Units*

### *Yes to Energy Efficiency and Renewables*



TVA has applied for a combined construction and operating license (COL) from the Nuclear Regulatory Commission (NRC) to build and operate two Westinghouse AP 1000 nuclear reactors at its Bellefonte site near Scottsboro and on the Gunter Reservoir. The two proposed reactors will together produce 2,234 MW and are projected to come on line around 2018.

TVA has not involved we the citizens in its decision to build this plant. In its NRC application documents, TVA says that it will begin purchasing equipment in 2009.

### **Bellefonte Concerns**

#### **Bellefonte is Unneeded**

- The TVA projects continuing growth in the demand for electricity. However, TVA completely dismisses energy efficiency and demand side management as ways to reduce the demand for energy. TVA projects zero energy savings from energy efficiency, demand side management, and renewables.
- Energy efficiency is the first fuel. Utilities in other states are fully meeting increases in projected demand through energy efficiency. By reducing our energy consumption, we can avoid the need for new plants like Bellefonte.
- Demand side management (DSM) programs reduce peak demand, the time of day or time of year when the most electricity is used, typically the hottest or coldest days. Innovative approaches to cutback on electricity use during these peak times reduce the amount of electricity TVA has to produce.

#### **How Much Energy Efficiency and DSM can \$20 Billion Buy?**

- The cost for the new generations of nuclear plants is quickly rising. The two plants if built today would cost between \$12 billion and \$18 billion, well above TVA's initial estimate of \$7 billion. By the time they are actually built in a few years, who knows how high the price will go.

- If TVA dedicated \$20 billion to energy efficiency and DSM, the residents of the TVA service area would consume less energy, have a reduced carbon footprint, and enjoy increased job opportunities from the employment growth due to people working on realizing the benefits of energy efficiency. \$20 billion worth of energy efficiency would reduce as much energy consumption as the Bellefonte plant would produce.

### **The Bellefonte Plant is Vulnerable to Drought**

- The Bellefonte area is experiencing an exceptional drought, one of the worst droughts the Southeast has ever experienced.
- Assuming the BLN plant operates continually for one year, it will withdraw 13 billion gallons of water, consume 8.6 billion gallons, and return to the Tennessee River 4.2 billion gallons a year.

### **Thermal Pollution**

- The water withdrawn from the Tennessee River will be used to cool the coolant that passes through the nuclear core. (Remember, the nuclear reactor is being used to boil water to create steam.)
- The water returned to the Tennessee River will have a temperature of 91 degrees.
- Brown's Ferry and Sequoyah both had serious problems with the discharge being too close to the intake, preventing full operation during the hottest months. Both had to be shutdown this summer because of high intake water temperature.

### **Population Centers Within the 50 Mile Perimeter**

- Huntsville (due west) 38 miles                      Scottsboro (SW) 7 miles
- Chattanooga (NE) 44 miles                      Gadsen (S) 48 miles                      Sewanee (N) 40 miles

### **Cumulative Impacts**

- If the Bellefonte units are built, six nuclear reactors will be within 50 miles of downtown Chattanooga. The city and region will experience accumulated risks from radioactive air emissions, radioactive water leaks, thermal pollution, diminished water supply, and nuclear accidents.

### **TVA Accountability**

- In its application to the NRC, TVA states it will start purchasing equipment in 2009.
- What role, if any, will citizens have in the decision-making process?

### **Other Concerns**

- Radioactive air pollution
- The Bellefonte plants lie on an active seismic zone.
- Security issues in transport of fuel and radioactive waste, plus vulnerability to attack by determined terrorists
- Storage of high-level nuclear waste - no long-term off-site storage available.
- Low-level waste - no site within southeast for the burial of low level waste

**Join BEST, Bellefonte Efficiency and Sustainability Team! ([belleefficiency.net](http://belleefficiency.net)) Send \$20 dues to BREDL, PO Box 88 Glendale Springs NC 28629 ([www.bredl.org](http://www.bredl.org)). Join the BEST Call. Contact Louise Gorenflo at [lgorenflo@gmail.com](mailto:lgorenflo@gmail.com) (931-484-2633.) Weekly regional strategy conference calls. Local community committees. Now or never!**